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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,745	08/02/2004	Wolfgang Reuter	F-8301	4650

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Jordan and Hamburg
122 East 42nd Street
New York, NY 10168

EXAMINER

LESLIE, MICHAEL S

ART UNIT PAPER NUMBER

3745

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/501,745

Applicant(s)

REUTER ET AL

Examiner

Michael Leslie

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-16 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/1/04 & 8/5/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the actuator member in the form of “a flow-dividing actuator” (claims 4 & 12) and “a spindle actuator” (claim 6), and the “series connection” (claims 10 & 12) of the actuator members of the actuator element must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 9 has been renumbered 10. In the original claim listing, before entry of the preliminary amendment, amended claim 9 was original claim 10. After entry of the preliminary amendment claim 10 is missing from the listing, however the limitations of original claim 10 are listed as claim 9. Following the renumbering, see above, it appears claims 1-8 and 10-16 are pending and claim 9 is canceled.

Claims 1-8, 10-14, and 16 are objected to because of the following informalities: Claim 1, Line 4, --having-- should be inserted before “a measuring throttle”, Line 6, “latter” should be -servo actuator--; Claim 4, Line 3, “actuator is provided as said” should be deleted; Claims 1-8 and 10-12 contain recitations of an “actuator element”, “actuating element”, “actuator member”, and “actuating member” wherein the differing recitations refer to the same elements, consistent terminology should be used when referring to the same limitation throughout the claims; Claim 13, Line 3, “servopump” should be --pump--; Claim 14, Line 2, “servopump” should be --pump--; Claim 16, Line 6, “Q_{step}” should be in parentheses, Lines 6-7, “and is assigned ... compensator” should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8 and 10-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites “a measuring throttle” in lines 4 and 12-13, and “an actuating element” in lines 10-11 and 13. It is unclear if the latter recitations are an unintentional double inclusion or intended to further limit the claim.

Claims 10-12 recite the limitation “the actuator members” in lines 2-3. There is insufficient antecedent basis for this limitation in the claim. With regard to claim 10, as it depends from claim 1, there is no mention of actuation members, and further, as it depends from claim 2, only one actuation member has been recited. While the specification describes the actuating element as including two actuation members, the preceding claims (1-8), only include one actuator element.

Claim 11 is further indefinite due to its dependence from cancelled claim 9.

Claims 2-8 and 13-16 are indefinite due to their dependence from claim 1.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7/1, 8/7/1, and 13/1, as far as they are definite, are rejected under 35 U.S.C. 102(b) as being anticipated by Haga et al (5651423).

Haga et al discloses a power assisted steering system having a pump (11) feeding a hydraulic servo actuator (13) and a three way flow regulator valve having a measuring throttle (40) and an outflow throttle (57), located in the bypass of the servo actuator, having a variable throttle cross section determined by a piston (51), as a pressure compensator, charged on opposite sides by pressure at the inflow and outflow sides of the measuring throttle and by an actuating element, on the outflow side, having an actuating path dependent on the actuating force and opposing force. Wherein the actuating element includes an elastic actuating member in the form of a spring, and the pump is a constant delivery pump.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haga et al (5651423) in view of Duffy (4760892).

Haga et al discloses a power assisted steering system as described above with respect to claim 1, but does not teach that the actuating element includes an actuating member in the form of a magnet force actuator.

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Duffy teaches a power assisted steering system having an outflow throttle (18) having an actuating member (60), in the form of a magnet force actuator, controlled by a function of current applied, governed in part by a measured pressure (20) in the circuit leading to the servo actuator.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Haga et al by having the actuating element include an actuating member in the form of a magnet force actuator as taught by Duffy for the purpose of improving vehicle safety through enhanced control by providing a variable degree of power assistance for supplementing steering input.

Claims 14/1, 15/14/1, 16/15/14/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haga et al (5651423) in view of Miller (3971216).

Haga et al discloses a power assisted steering system as described above with respect to claim 1, but does not teach that the pump is an adjustable pump, actuated by the outflow throttle/pressure compensator, that is spring loaded to an outlet position corresponding to an equilibrium position of the outflow throttle.

Miller teaches equivalent/interchangeable load responsive pump control systems for both constant and adjustable delivery pumps having a three way flow regulator (10, 16, 24; 210, 114, 24), wherein the adjustable delivery pump is actuated by the outflow throttle/pressure compensator (114), and is spring loaded (106) to an outlet position corresponding to an equilibrium position of the outflow throttle.

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Haga et al by having an adjustable pump, actuated by the outflow throttle/pressure compensator, that is spring loaded to an outlet position corresponding to an equilibrium position of the outflow throttle as taught by Miller for the purpose of supplying fluid to the servo actuator.

Claims 14/2/1, 15/14/2/1, 16/15/14/2/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haga et al (5651423) in view of Duffy (4760892) as applied to claim 2 above, and further in view of Miller (3971216).

Haga et al, as modified above with respect to claim 2, discloses a power assisted steering system as described above, but does not teach that the pump is an adjustable pump, actuated by the outflow throttle/pressure compensator, that is spring loaded to an outlet position corresponding to an equilibrium position of the outflow throttle.

Miller teaches equivalent/interchangeable load responsive pump control systems for both constant and adjustable delivery pumps having a three way flow regulator (10, 16, 24; 210, 114, 24), wherein the adjustable delivery pump is actuated by the outflow throttle/pressure compensator (114), and is spring loaded (106) to an outlet position corresponding to an equilibrium position of the outflow throttle.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Haga et al, as modified above with respect to claim 2, by having an adjustable pump, actuated by the outflow throttle/pressure compensator, that is

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spring loaded to an outlet position corresponding to an equilibrium position of the outflow throttle as taught by Miller for the purpose of supplying fluid to the servo actuator.

Allowable Subject Matter

Claims 4, 6, 7/2/1, and 8/7/2/1 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 6390228, 6119803, 5439070, 5048628, 4798050, and 3153900 each disclose power assist steering systems.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Leslie whose telephone number is (571) 272-4819. The examiner can normally be reached on M-F 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look can be reached on (571) 272-4820. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML
September 29, 2005


Michael Leslie
Patent Examiner
AU 3745